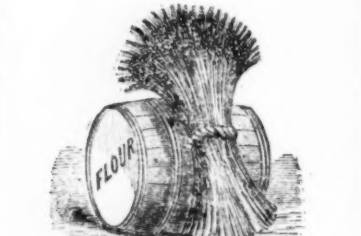


Maine Farmer.

Maine Farmer Wheat Prices.



In appreciation of the efforts which the farmers of our State have made in the growing of wheat in answer to our call; and as a still further inducement towards the raising of larger yields, the better preparation of the land, and more intensive culture of the wheat crop, the proprietors of the FARMER hereby offer a prize of ONE HUNDRED DOLLARS in cash, in three premiums, to be paid to the successful competitor in the fall of 1879, upon the following conditions:

1. On the part of the Proprietors of the FARMER. The money will be placed in the hands of the Treasurer of the State Agricultural Society, the Trustees of which shall appoint a committee who shall have the entire control of the matter, and who shall, as soon as may be after the harvest of 1879 is completed, award the same in premiums of \$50, \$30 and \$20, respectively to those farmers in Maine who shall grow the largest amount of wheat per acre, the second largest, and of the third largest.
2. On the part of the competitors. Farmers who intend to compete for this premium shall signify their intention to us on or before June 1st, 1879, at which time the list of competitors will be published in our columns. The land on which the crop is grown shall consist of one acre of 4840 square yards which shall be measured by a sworn surveyor, or by one of the Selectmen of the town in which the competitor resides. The yield of the crop shall be given in bushels and quarts, and a statement, sworn to before a Justice of the Peace, shall be presented to the Committee after the same is harvested, containing the yield of the acre, the method of preparing the ground, mode of culture, &c. Blanks for this purpose will be provided in due season for all competitors.

Composition of Soils.

Mr. Editor: Do you not think it important for farmers to know the composition of the soils they cultivate, and to please give us through the FARMER, a simple and inexpensive way of ascertaining approximately the character and composition of our soils?

YOUNG FARMER.

There can be no doubt that it is of great advantage to the farmer, to be able to ascertain the component parts of his soils, in order to be able to correct any faults in the original composition, or to supply any deficiency arising from improper cultivation. To obtain an exact analysis of soils including the animal and vegetable portions, is a complicated process, but this is not absolutely essential; a simple, yet efficient method, for all practical purposes, may be made use of by any farmer, with trifling expense. The points which a farmer may be able to ascertain by these processes, are as follows: The absorbent power which is due to the amount of animal and vegetable matter; the per cent. of silica, and of alumina or clay, of the carbonate of lime, the oxides of iron, and the gypsum. The implements needed in the process are a pair of balances, accurate to the tenth of a grain; a crucible, some muriatic acid and a few small glass vessels.

The soil to be analyzed should be taken from a little below the surface, and should be an average of the soil of the field from which it is taken. For the first experiment, two hundred grains should be taken and well pulverized. It should then be put into the crucible and placed in an oven heated sufficiently to bake bread, and should be allowed to remain for about fifteen minutes. It should then be taken out, cooled and weighed. The loss of moisture will indicate the absorbent power of the soil, and as this depends principally on the animal and vegetable matter it contains, it is a measure of its fertility. The residue left in the crucible, after the loss of water, is the soil, and it is this which is to be analyzed. It is to be placed in a glass dish, and the water added, and the dish placed in a water bath, and the water allowed to boil for three hours. The water should be poured off, and the residue left in the dish, and the water added, and the dish placed in a water bath, and the water allowed to boil for three hours. The water should be poured off, and the residue left in the dish, and the water added, and the dish placed in a water bath, and the water allowed to boil for three hours.

Next take 200 grains of the dried earth and mix it with a grain of water, by stirring it several minutes; let it stand for three minutes and then turn it into another glass. Dry what is left, at a high heat, and its weight will show the silica and sand in the soil. Let the muddy water turned off, stand until it settles; then turn off the water and dry the residue at a high heat; weigh, and it will show the weight of clay. To ascertain the quantity of lime, take one ounce of muriatic acid and an equal amount of water and put them together into a glass and balance the scales carefully; then put into the glass 100 grains of the earth to be tested, and let it stand until effervescence ceases; carefully note the weight again required to balance the scales; this weight will show the amount of carbonic acid gas set free and expelled; then as 45 is to 55, so is the weight of expelled gas to that of the base, or of the lime in the soil. To ascertain if the soil contains iron, stir the mixture of acid, water and earth with a strip of oak, hemlock or bark, and if iron is present it will color the bark dark. To determine the amount of gypsum or plaster of Paris, take 400 grains of the earth, mix one-third the quantity of powdered charcoal, keep it in a red heat in a crucible for half an hour. Then boil the earth in a pint of water for an hour, filter the liquor and let it stand for several days in an open vessel, when a white precipitate will be found, which is

the sulphate of lime, and its weight will show its proportion of the soil.

These processes observed with care, will indicate very nearly—near enough for all practical purposes—the proportion of the essential ingredients in the soil, and the ingredients above named, which, in fact, are those which exercise in any marked degree, an influence on the fertility of soils, and on their proportion, the goodness of any given soil largely will depend. When soils contain too much silica (sand or gravel), they are porous; if too much alumina (clay), they are retentive, and water will remain upon them for a long time after a rain. We would remind the young experimenter that it is often difficult to obtain a specimen of earth from a farm, or even from a large field, which shall truly represent the average quality of the soil of the farm or field, in which case the experimenter might be deceived. The application of the foregoing tests, it may be almost impossible to determine the amount of materials available to the plants; for much of the ash of plants is absorbed from portions of soil which are continually becoming soluble, but which are present in such conditions, only in very minute quantities. Every farmer knows that the application of any fertilizer which corrects the physical condition of the soil, effects a marked improvement in its chemical condition and greatly increases its fertility. Different plants require different proportions of the essential ingredients, to mature a full crop, consequently some crops exhaust the soil much more than others do. In their demands upon the soil, cultivated plants have been classed as follows: Enriching crops, clover, non-enriching crops, peas and beans, and cereals when cut green; enriching crops, cereals, when allowed to ripen, beets, turnips, potatoes and carrots; very exhausting crops, tobacco, hops, hemp and flax. This classification, so far as it goes, is not absolutely correct, though perhaps it is approximately so. These matters have been discussed over and over again, and many points are yet unsettled.

In the foregoing directions we have omitted the process of analyzing decayed animal and vegetable matter found in the soil, because the process is too complicated for the farmer, but these substances contain many of the salts essential to the maturity of our most valuable crops. The cereal grains will not come to perfect maturity in a soil which is deficient in potash, soda, magnesia, phosphoric acid, chlorine, and iron, and decayed animal and vegetable matter contains all these in greater or less proportion. Bones are rich in phosphorus and also contain magnesia, chlorine, soda and several other salts. These different kinds of plant food are all derived from the soil and from the atmosphere, and the medium of their transmission into the vegetable organism is water which is assisted in its solvent action, by carbonic acid and ammonia. Bone is nearly one-third carbon, and when undergoing putrefaction or decay, its nitrogenous organic matter evolves a considerable amount of ammonia. This measure is therefore particularly adapted to the growth of cereals and clover.

What we denominated a good soil should contain in one hundred parts, from 65 to 75 per cent. of silica or sand, 12 to 16 of alumina, from 4 to 8 of lime, and of the other elements, such as soda, potash, magnesia, iron, phosphoric acid and chlorine, and of decayed animal and vegetable matter, a due proportion. This would be called a sandy loam. A clay loam contains less of sand and more of clay, and while in some respects it is more desirable than the former, in others it is less so. The sandy soil, however, is a simple, yet efficient method, for all practical purposes, may be made use of by any farmer, with trifling expense. The points which a farmer may be able to ascertain by these processes, are as follows: The absorbent power which is due to the amount of animal and vegetable matter; the per cent. of silica, and of alumina or clay, of the carbonate of lime, the oxides of iron, and the gypsum. The implements needed in the process are a pair of balances, accurate to the tenth of a grain; a crucible, some muriatic acid and a few small glass vessels.

The sale of a gray trotting stallion Independence to New York parties, for a large sum, following soon after the Kellogg sale in New York, at which low prices were realized, has caused quite a sensation among breeders and fanciers in Maine, and we take this opportunity to lay before our readers a few facts concerning this horse and his history.

Independence is a gray stallion, foaled July 4, 1871. He was bred by Frank Taylor of Windsor, Vermont, and was sold to this city and delivered within four months for \$235. He was got by Gen. Knox, the well known sire of Lady Maud 2:13.4; Camors 2:19.4 and a host of other fast trotters, and his dam was by Gideon, son of Rydyk's Hambletonian; 2:14m by Indian Chief, a gray stallion, brought from Canada many years ago, that both proved and trotted.

Independence during his short career on the turf in 1878 obtained a record of 2:34, which is claimed by good judges to be no measure of his capacity. The horse was sold to Messrs. A. S. & E. O. Bell of the same city, and the price paid was \$7,000. His owners have not decided what disposition will be made of the horse, but have simply bought him on speculation.

The above facts show that good horses will bring good prices, even in these hard times, and should be encouraging to the breeders of this State, and the fact that the Messrs. Bell attended the late Kellogg sale without purchasing even at the prices realized, goes to show that Maine horses stand very high in the estimation of the best judges.

Care of Fowls.

Our cut this week represents a pair of Brown Leghorns, or Spanish fowls. The black variety are generally called "Black Spanish," and the white "White Leghorns." They are generally regarded the same in all essentials except that of color. These hens in the production of eggs, excel almost every other variety. They lay eggs in season and out of season, rarely wanting to set. They are handsome, hardy and productive. On account of their superior egg producing qualities, it is a common practice to set their eggs under some other breed, thus effecting a division of labor. As food, they are inferior to some other kinds.

care is bestowed either upon the quality or quantity of the food. Under these circumstances even, it is found profitable to keep them, and scarcely any family likes to be without them.

Hens require a mixed diet of vegetable and animal food, and a good supply of pure water. Mixed with their food should be a plentiful supply of egg shells or chalk, which furnishes the material for the shell. Other things being equal, a hen supplied with these substances cannot afford of largely increasing her product of eggs. However nourishing the diet may be in other respects, unless she is supplied with the material for forming the shell, she can produce but few eggs; and if shut up and fed on substances free from the carbonate of lime, she would not lay at all.

The difference in the quality of hens' eggs does not receive the attention it deserves. A hen in a thrifty condition produces a much richer egg than one which is thin in flesh. A rich egg, the product of a thrifty hen, should have a large, firm yolk, of rich golden color, while the white should be clean and limpid as pure oil; the product of the lean bird, on the other hand, shows a smaller yolk, lacking in firmness and of a paler hue, while the white is of less consistency, and of a milky whiteness. The former contains a third more nutriment than the latter, and its absolute value as an article of food, is greater by half. This shows the importance of feeding so as to keep the birds in good condition the year round.

The selection of fertilizers for the season's use is a proper subject for consideration as the spring opens. The farmer who has an abundance of barn and stable manure will have no occasion to purchase commercial fertilizers, but we do not presume there are many so fortunate as this in this State. Many farmers are in the habit of procuring every year, more or less of superphosphate, or some other fertilizer, and would not think of getting along without them, and there are many others who have never used them who find it greatly to their advantage to do so. With regard to the kind of fertilizer to use, no specific rule can be laid down. Some places of land need one thing and some another, and farmers in the first place, should try and ascertain what is exhausted in the soil and needs to be restored. Persons who have never experimented with fertilizers will necessarily be obliged to proceed slowly; they should buy a small quantity and experiment with it. The substances of closest resemblance to the manure of the horse and cow, are lime, potash, nitrogen and phosphoric acid. The stockbreeders fertilizers have a wide reputation, but there are many others equally as good. No doubt a home made fertilizer compounded according to the formula of Dr. Nichols, would be well, perhaps as well as any, while it has no advantage of being much cheaper than that made at the factories.

The Penobscot county Farmer's Club at its last meeting discussed the question, "How and at what time should manure be applied to the soil." Messrs. Fawcett of Glenburn, and E. W. Knight of the farms of Steadon, did not compose their manure, but put it upon the land green, believing it that green manure possesses all the fertilizing qualities that it ever does. C. M. Freeman of Vezie, said farmers must look after odds and ends as carefully as manufacturing the manure. He said that he was using up all substances that will increase the compost heap. Mr. E. A. Gregory would apply green manure in the spring for potatoes, but for corn, old rotted dressing. Mr. B. B. Thomas of Hampden, advised applied manure to the land when it was most convenient to do so. Stephen Chase of the same place, argued that barn manure should be kept from spring till fall, then spread upon the land and ploughed in. Hebron Luce said he applied his manure as soon as possible, burying it not over two inches deep. Amos Hart of Holden, prepares his dressing in the barn cellar, throws on water, and the liquid is poured over the manure, and the whole is then spread upon the land. Remarks were also made by Messrs. Phillips of Orrington, Cook of Hampden, Amos Pickett of Bangor, R. W. March of Hampden, and H. M. Farrington of Brewer. The discussion was interesting and profitable. It was voted to hold the next meeting on the 15th of May, at the house of J. W. subject, "Which is the best breed of neat stock for the farmer of Penobscot county to raise?"

As we write this, the snow is thickly falling and nearly a foot has accumulated. A year ago to-day (April 11th), the river had been open to navigation; three weeks ago the snow had melted, and many farmers had been considerable progress in their spring's work. The spring is very backward, but this is no cause for discouragement, for very fruitful seasons have often followed springs full as late and sometimes more so. Late snows like this are caused by the poor state of the fertilizers, and snow which falls at this season is found to contain traces of ammonia which adds to the fertility of the soil upon which it is deposited. Our farmer friends should improve the time in getting everything in readiness for a vigorous opening of the season's campaign, as soon as the weather and soil will permit. The financial condition of the six leading banking establishments of Europe on the first day of Feb. last was as follows: Gold coin and bullion on hand, Bank of France \$21,082,000; Bank of England, \$30,068,700; Bank of Germany, \$24,288,000; Bank of Austria, \$16,142,000; Bank of Russia, \$10,362,000; Bank of Belgium, \$9,380,000; Total \$121,300,700, or \$850,000,000 of our currency, and with the capital of private and other national banks, including Russia, etc., the amount of gold and silver coin in Europe would probably be equal to the whole amount of our national debt; and yet there is a universal complaint among all the industries of those countries, of the scarcity of money and hard times among the laboring classes. Scarcity of money is certainly not the cause of the hard times.

In reply to numerous letters from parties East, asking for information about the prospects for young men of small means in California the Farmer says: "We cannot offer any great inducements to young men that are without such means as for any great business operations—money is the essential, and any young man that is now doing well East we say, hold fast to a good position and stay where you are, 'till you can get a better one.' Too many persons give up a certainty for an uncertainty—and regret it when too late."

For the Maine Farmer.

Crops in Tipfield.

I herewith give you the number of bushels of grain raised in the town of Tipfield by the following persons: Stephen Steadon, 30 bushels; F. A. Lobthrop, 40; W. F. Johnson, 20; O. F. Lobthrop, 130; W. B. Burpee, 15; H. Mallory, 25; John Bailey, 28; Eliakim Tupper, 40; H. C. Paine, 23; D. G. Lane, 27; G. M. Taylor, 38; L. A. Crabtree, 59, making in all 939 bushels raised within one mile of the village of Tipfield, an average of 70 bushels to the acre. For the same year, the crops of the town of Tipfield were as follows: Wheat, 1,457 bushels; barley, 1,457; oats, 1,457; corn, 1,457; clover, 1,457; hay, 1,457; and other crops, 1,457. The total amount of grain raised in Tipfield was 9,390 bushels, or an average of 70 bushels to the acre.

The stock ranch and summer residence of ex-Gov. Stanford of California, contains about 800 highly bred horses, and it requires a mile of stables to accommodate them. He is breeding his thoroughbred mares to trotting stallions; not especially with a view to the production of fast trotters, as some of our contemporaries would have us think, but as a means of laying the foundation for permanent improvement in the horse stock of that State, for general purposes; and in this he is not far out of the way. So says the Live Stock Journal.

The Live Stock Journal is decidedly of the opinion that brood mares should have plenty of exercise, and nothing is better for them than to be turned out to graze on the hills.

For the Maine Farmer.

About Dairying in Vermont and Maine.

Maine is a good grass-producing country. Living in Maine for many years and familiar with her agriculture, I have since lived thirteen years in Vermont; and I can see no marked superiority over the dairy stock in the quality of her soils. Maine has in fact a larger variety of soils, and more soil of all kinds, because she is three times the size of Vermont, and the value of the Vermont dairy stock is not so high as that of the Maine dairy stock. The latter alone embraces more arable land than all Vermont, and is not in the least more unfavorable for dairy husbandry.

For the Maine Farmer.

The foundation of dairying is good grass. Maine is a great exporter of hay. Can it be possible that it pays Vermont to transport her grass into butter and cheese, but not to pay Maine to do the same? Selling hay is a very rude and primitive sort of husbandry. It might do well in the early stages of the dairy business, but it is not a profitable business. Now it will not do, and an agricultural community that lives by the dairy must have a more advanced order of husbandry. The dairy must be a more advanced order of husbandry. The dairy must be a more advanced order of husbandry. The dairy must be a more advanced order of husbandry.

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New York, when called upon by a merchant to tell what was the matter with cheese which all his customers brought back, and which he had to make good.

For the Maine Farmer.

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